UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,889	11/27/2000	Henry F. Lada	COMP:0129 (P00-3124)	6088

7590 09/16/2005	EXAMINER
Intellectual Property Administration	YANCHUS III, PAUL B
Legal Department, M/S	

	ART UNIT	PAPER NUMBER
PO Box 272400	2116	
Ft. Collins, CO 80527-2400		

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/722,889	LADA ET AL.
	Examiner	Art Unit	
	Paul B. Yanchus	2116	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-9,12-14,16-26 and 28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26 and 28* is/are allowed.

6)☒ Claim(s) *1,2,4-9,12-14 and 16-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

This final office action is in response to communications filed on 7/14/05.

Allowable Subject Matter

Claims 26 and 28 are allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1, 2, 4-9, 12-14 and 16-25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shih et al, US Patent no. 6,405,362 [Shih] and Mills et al., US Patent no.

6,353,870 [Mills], in view of, Kirinaka, US Patent no. 6,052,742.

Regarding claim 1, Shih teaches a method comprising:

coupling an option pack [Compact Flash, PCMCIA memory card or other removable

computer readable medium] to a main unit [Palm-size PC, column 6, lines 43-46],

the option pack comprising a first memory device configured to store one or more

applications and drivers associated with the one or more applications [column 6, lines 9-20],

the main unit comprising a device manager [operating system, column 6, lines 20-25], a

power supply and a third memory [column 4, lines 49-51 and Figure 1]; and

downloading the one or more applications and associated drivers from the first memory

device to the third memory device [column 7, lines 20-23 and lines 55-61].

Shih does not explicitly specifically disclose a second memory device on the option pack

that stores card identification data and is different from the first memory device. Shih does state

that the option pack may be any well known removable computer medium [column 6, lines 43-

46]. Mills discloses a known MultiMediaCard, which includes a first memory for storing

application data [Memory Core in Figure 3A] and a second memory, which is different from the

first memory, that stores card identification data [CID and CSD in Figures 3A and 3B]. Mills

discloses that the CID and CSD registers contain information that is needed for the card to

interface with host computers [Figure 3B].

It would have been obvious to one of ordinary skill in the art to use the Mills

MultimediaCard as the removable computer medium disclosed by Shih as it is a known

removable computer medium capable of fulfilling Shih's goal of providing additional

functionality to a Palm-size PC.

Shih and Mills disclose a method of coupling an option pack to a main unit and

transmitting identification data from the option pack to the main unit. Shih and Mills do not

disclose transmitting the identification data from the option pack to the main unit before the

option pack is fully powered. Kirinaka discloses transmitting identification data [physical

specification of the operational voltage] from an option pack [expansion card] to a main unit

[host machine] before the option pack is fully powered. After the identification data is received,

the main unit supplies a full power to the option pack based on the received identification data

[column 3, line 33 – column 4, line 11]. It would have been obvious to one of ordinary skill in

the art to modify the Shih and Mills method to transmit card identification data from the option

pack to the main unit before the option pack is fully powered in order to increase the flexibility

of the method by enabling the main unit to function with option packs that have different

operational voltages without the risk of supplying inappropriate operational voltages and

harming the option packs.

Regarding claim 2, Shih states that the option pack may be any well known removable

computer medium [column 6, lines 43-46].

Regarding claim 4, Shih discloses a driver for overseeing the interaction between that

main unit and the option pack [shell and event manager, column 6, lines 28-31 and 41-45].

Regarding claim 5, Shih states that the option pack may be a Compact Flash card

[column 6, lines 43-46].

Regarding claim 6, Mills states that known removable expansion cards contain ROM

[column 1, lines 19-21].

Regarding claim 7, Shih teaches that the installed applications from the option pack are

deleted when the option pack is removed [column 7, lines 23-28 and lines 62-67]. Therefore, the

memory in the main unit will not comprise the option pack applications when the card is

inserted.

Regarding claim 8, Shih teaches that the installed applications from the option pack are

deleted when the option pack is removed [column 7, lines 23-28 and lines 62-67].

Regarding claim 9, Shih teaches that the installed applications from the option pack are

deleted when the option pack is removed [column 7, lines 20-28 and lines 62-67].

Regarding claim 12, Shih teaches that the installed applications from the option pack are deleted when the option pack is removed [column 7, lines 20-28 and lines 62-67].

Regarding claim 13, Mills teaches that the CID and CSD registers contain option card configuration and identification information [Figure 3B].

Regarding claim 14, Mills teaches that the MultimediaCard communicates data to the main unit through a single data pin [DAT in Figure 3]. Therefore, any information transferred from the MultimediaCard to the mina unit must be done serially.

Regarding claims 16 and 18, Shih, Mills and Kirinaka do not explicitly teach determining whether the power supply in the main unit has enough power to activate the option pack fully. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a power supply has enough power to fully perform a function before attempting to complete the function. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the power supply in the main unit has enough power to activate the option pack fully before attempting to activate the option to prevent the activation process from being stopped prematurely due to power deficiencies.

Regarding claims 17 and 19, Shih, Mills and Kirinaka do not explicitly teach determining whether the third memory space has enough memory capacity to receive the applications and associated drivers stored on the first memory. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a first memory has enough memory capacity to completely save data copied from a second memory before attempting to copy the data. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the third memory space has enough memory capacity to receive the

applications and associated drivers stored on the first memory to prevent wasted time and power

consumption of attempting to copy data to the third memory when it does not have enough

memory capacity.

Regarding claim 20, Shih teaches a method of connecting an option pack to a main unit

comprising:

powering on the main unit and determining if there is an option pack coupled to the main

unit [column 6, lines 41-51 and column 8, lines 10-18];

providing an interrupt signal from the option pack to the main unit, interrupting the

processing of the main unit and notifying the main unit that the option pack is present [column 6,

lines 32-40 and 42-46]; and

downloading one or more software applications and associated drivers from the option

pack to the main unit [column 7, lines 20-23 and lines 55-61].

Shih does not explicitly specifically disclose a second memory device on the option pack

that stores card identification data and is different from the first memory device. Shih does state

that the option pack may be any well known removable computer medium [column 6, lines 43-

46]. Mills discloses a known MultiMediaCard, which includes a first memory for storing

application data [Memory Core in Figure 3A] and a second memory, which is different from the

first memory, that stores card identification data [CID and CSD in Figures 3A and 3B]. Mills

discloses that the CID and CSD registers contain information that is needed for the card to

interface with host computers [Figure 3B].

It would have been obvious to one of ordinary skill in the art to use the Mills

MultimediaCard as the removable computer medium disclosed by Shih as it is a known

removable computer medium capable of fulfilling Shih's goal of providing additional

functionality to a Palm-size PC.

Shih and Mills disclose a method of coupling an option pack to a main unit and

transmitting identification data from the option pack to the main unit. Shih and Mills do not

disclose transmitting the identification data from the option pack to the main unit before the

option pack is fully powered. Kirinaka discloses transmitting identification data [physical

specification of the operational voltage] from an option pack [expansion card] to a main unit

[host machine] before the option pack is fully powered. After the identification data is received,

the main unit supplies a full power to the option pack based on the received identification data

[column 3, line 33 – column 4, line 11]. It would have been obvious to one of ordinary skill in

the art to modify the Shih and Mills method to transmit card identification data from the option

pack to the main unit before the option pack is fully powered in order to increase the flexibility

of the method by enabling the main unit to function with option packs that have different

operational voltages without the risk of supplying inappropriate operational voltages and

harming the option packs.

Regarding claim 21, Shih, Mills and Kirinaka, as described above, teach that the option

pack is inserted into main unit while the main unit is powered on. Therefore, the option pack is

being hot-plugged into the main unit.

Regarding claims 22 and 23, Shih, Mills and Kirinaka do not explicitly teach

determining whether the power supply in the main unit has enough power to activate the option

pack fully. However, the Examiner takes official notice that it is notoriously well known in the

art to determine whether a power supply has enough power to fully perform a function before

attempting to complete the function and notifying a user if there is not enough power.

Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether

the power supply in the main unit has enough power to activate the option pack fully before

attempting to activate the option to prevent the activation process from being stopped

prematurely due to power deficiencies.

Regarding claims 24 and 25, Shih, Mills and Kirinaka do not explicitly teach determining

whether the third memory space has enough memory capacity to receive the applications and

associated drivers stored on the first memory. However, the Examiner takes official notice that it

is notoriously well known in the art to determine whether a first memory has enough memory

capacity to completely save data copied from a second memory before attempting to copy the

data and notifying a user if there is not enough memory capacity. Accordingly, it would have

been obvious to one of ordinary skill in the art to determine whether the third memory space has

enough memory capacity to receive the applications and associated drivers stored on the first

memory to prevent wasted time and power consumption of attempting to copy data to the third

memory when it does not have enough memory capacity.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4-9, 12-14 and 16-25 have been

considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul B. Yanchus whose telephone number is (571) 272-3678. The examiner can normally be reached on Mon-Thurs 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Paul Yanchus
September 12, 2005